What is Claimed is

1.   A microcomputer provided with a flash memory and having a self-programming function of rewriting a program stored in said flash memory, comprising:

a rewrite program area for storing a program for a rewriting processing procedure for said flash memory; and

a controller for forming a plurality of flag areas locally in said flash memory when the rewriting program stored in external storage means or said rewrite program area is written into said flash memory, performing determination of completion of a plurality of stages of rewriting processing or determination of whether the plurality of stages are good or bad and recording results of the determination into the respective flag areas.

2.   A microcomputer provided with a flash memory according to claim 1, wherein said flash memory includes a plurality of blocks each of which is an erasable unit and includes a data area and a flag area, and said controller maps the data areas of the plurality of blocks to successive addresses.

3.   A microcomputer provided with a flash memory and having a self-programming function of rewriting a program stored in said flash memory, comprising:

a rewrite program area for storing a program for a

23

5 rewriting processing procedure for said flash memory;

rewriting means for forming a plurality of flag areas locally in said flash memory when the rewriting program stored in external storage means or said rewrite program area is written into said flash memory; and

10 a controller for performing determination of completion of a plurality of stages of rewriting processing or determination of whether the plurality of stages are good or bad and recording results of the determination into the respective flag areas through said

15 rewriting means.

4. A microcomputer provided with a flash memory and having a self-programming function of rewriting a program stored in said flash memory, comprising:

a rewrite program area for storing a program for a

5 rewriting processing procedure for said flash memory;

rewriting means for forming a plurality of flag areas locally in said flash memory when the rewriting program stored in external storage means or said rewrite program area is written into said flash memory;

10 a controller for performing determination of completion of a plurality of stages of rewriting processing or determination of whether the plurality of stages are good or bad and recording results of the determination into the respective flag areas through said

24

15 rewriting means; and

flag state notification means for comparing, when power supply is made available after the rewriting is completed, values read out from said flag areas with expected values for said flag areas stored in advance and

20 notifying said controller of results of the comparison.

5.   A microcomputer provided with a flash memory according to claim 3, wherein said flash memory includes a plurality of blocks each of which is an erasable unit and includes a data area and a flag area, and said

5 rewriting means maps the data areas of the plurality of blocks to successive addresses.

6.   A microcomputer provided with a flash memory according to claim 4, wherein said flash memory includes a plurality of blocks each of which is an erasable unit and includes a data area and a flag area, and said

5 rewriting means maps the data areas of the plurality of blocks to successive addresses.

7.   A method of storing a program into a flash memory of a microcomputer provided with said flash memory and having a self-programming function of rewriting the program stored in said flash memory, wherein

5   a plurality of flag areas are formed locally in said

flash memory when a rewriting program is written into

said flash memory, and determination of completion of a

plurality of stages of rewriting processing or

determination of whether the plurality of stages are good

10 or bad is performed, whereafter results of the

determination are recorded into the respective flag areas.